

CLAIMS

1. A method of treatment for treating, preventing, inhibiting or reducing extracellular matrix build-up in a body tissue or a bodily fluid transport vessel, in a subject, comprising administering to a subject in need of such treatment an effective amount of a composition comprising a peptide agent comprising amino acid sequence LKKTET, a conservative variant thereof, or a stimulating agent that stimulates production of an LKKTET peptide, or a conservative variant thereof, in said tissue, so as to inhibit said extracellular matrix build-up in a body tissue or a bodily fluid transport vessel.
2. The method of claim 1 wherein said peptide agent comprises thymosin beta 4 (T β 4), amino acid sequence KLKKTET, amino acid sequence LKKTETQ, an N-terminal variant of T β 4, a C-terminal variant of T β 4, an isoform of T β 4, oxidized T β 4 or T β 4 sulfoxide.
3. The method of claim 1 wherein said peptide agent is administered to said subject at a dosage within a range of about 1-10 mg/kg body weight of said subject.
4. The method of claim 1 wherein said agent is administered by direct administration to said tissue, or by intravenous, intraperitoneal, intramuscular, subcutaneous, inhalation, transdermal or oral administration, to said subject.
5. The method of claim 1 wherein said composition is administered systemically.
6. The method of claim 1 wherein said composition is administered directly.
7. The method of claim 1 wherein said composition is comprised of a matrix, adhesive, solution, gel, creme, paste, lotion, spray, suspension, dispersion, salve, hydrogel or ointment formulation.
8. The method of claim 1 wherein said peptide agent is a recombinant or synthetic peptide.
9. The method of claim 1 wherein said agent is an antibody.

10. The method of claim 1 wherein said peptide agent or said stimulating agent is administered in conjunction with utilization in said subject of at least one of an arterial stent, venous stent, cardiac catheterization, corroded stent, aortic stent, pulmonary stent, angioplasty, bypass surgery or neurosurgery.

11. The method of claim 1 wherein said matrix build-up comprises plaque present in at least one of a coronary vessel, heart valve or heart septa of said subject.

12. The method of claim 1 wherein said peptide agent or said stimulating agent is linked to a physiologically acceptable adhesive.

13. The method claim 1 wherein said peptide agent or stimulating agent is administered to said subject so as to treat, prevent, inhibit or reduce stenosis or restenosis in said subject.

14. The method of claim 13 wherein said peptide agent or said stimulating agent is administered at least one of prior to, during or following angioplasty in said subject.

15. A method for screening for a stimulating agent as defined in claim 1, comprising contacting a tissue exhibiting extracellular matrix build-up in a body tissue or a bodily fluid transport vessel, with a candidate compound; and measuring activity in said tissue of an LKKTET peptide, wherein an increase of activity of said peptide in said tissue, compared to a level of activity of said peptide in a corresponding tissue lacking said candidate compound, indicates that said compound is capable of inducing said stimulating agent.

16. The method of claim 15 wherein said LKKTET peptide is thymosin beta 4.

17. A method for screening for a peptide agent as described in claim 1, comprising contacting a tissue exhibiting extracellular matrix build-up in said tissue or a bodily fluid transport vessel of said tissue, with a candidate compound, and measuring reduction in said tissue of said extracellular matrix build-up, wherein a reduction of said extracellular matrix build-up in said

tissue, compared to extracellular matrix build-up in a corresponding tissue lacking said candidate compound, indicates that said compound is capable of treating, preventing, inhibiting or reducing extracellular matrix build-up in a body tissue or a bodily fluid transport vessel.

18. The method of claim 1 wherein said peptide agent or said stimulating agent is administered in combination with at least one plaque-reducing agent or cholesterol-reducing agent.